

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|--|---|---|----------------------|
| Applicant's or agent's file reference 030255WO | FOR FURTHER ACTION | | See Form PCT/PEA/416 |
| International application No. PCT/EP2004/003397 | International filing date (day/month/year) 31.03.2004 | Priority date (day/month/year) 08.04.2003 | |
| International Patent Classification (IPC) or national classification and IPC C22C21/06 | | | |
| Applicant HYDRO ALUMINIUM DEUTSCHLAND GMBH | | | |

| | |
|--|-----------------------------------|
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>8</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. 1 and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input checked="" type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | |
| Date of submission of the demand | Date of completion of this report |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/003397

Box No. I

Basis of the report

1. With regard to the language, this report is based on:

- ☐ the international application in the language in which it was filed
- ☐ the translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rule 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☐ the international application as originally filed/furnished
- ☒ the description:

pages 1-7 _____ as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

- ☒
- the claims:

nos. 1-4 _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* _____ received by this Authority on _____

- ☒
- the drawings:

sheets 1/1 _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

- ☐
- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

- 4.
- ☐
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)):

- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. II

Priority

1. ☒ This report has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested:
- ☒ copy of the earlier application whose priority has been claimed (Rule 66.7(a)).
 - ☐ translation of the earlier application whose priority has been claimed (Rule 66.7(b)).
2. ☐ This report has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rule 64.1). Thus for the purposes of this report, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|------|-----|
| Novelty (N) | Claims | 3, 4 | YES |
| | Claims | 1, 2 | NO |
| Inventive step (IS) | Claims | | YES |
| | Claims | 1-4 | NO |
| Industrial applicability (IA) | Claims | | YES |
| | Claims | 1-4 | NO |

2. Citations and explanations (Rule 70.7)

1. Prior art

The following search report citations (D1-D4) are cited in the present report; the same numbering is used throughout the procedure:

D1: US4151013

D2: US4186034

D3: Metals Handbook, Desk Edition, ASTM
International, 1998.

2. Independent claim 1 - a flat, rolled semi-finished article

Claims for products which are characterized in terms of a method for their production are allowed only if the products per se are novel and inventive (see EPO Guidelines, chapter III.4.7). In practice this means that only the features of the product are examined, without taking into consideration the method of production.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The present claim 1 relates to a flat, rolled semi-finished product whose composition is specified in claim 1 and which does not have stretcher strains (see page 4, lines 3-9, of the description of the application).

Document D1 discloses AIMg alloy sheets and other products whose composition matches that of the compound claimed in claim 1 (see page 4, lines 2-16), and which in addition do not have stretcher strains. Since all the features of claim 1 are already known from document D1, the novelty requirements of EPC Article 54(1) and (2) are not met and hence claim 1 is not considered novel.

Dependent claims 2 and 3

Document D1 mentions the stretching of the sheet at the end of the manufacturing process. The sheet is stretched to a set of 0.25% to 1%, preferably 0.5%. Consequently, the subject matter of claim 2 is not novel over document D1 (EPC Article 54(1) and (2)).

Although the available prior art does not disclose a flat, rolled semi-finished product having a coating, the coil-coating method is routinely used with rolled products and known to a person skilled in the art. Consequently, the subject matter of claim 3 is not inventive (EPC Article 56).

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability:
citations and explanations supporting such statement

D1, a person skilled in the art, proceeding from document D2, would carry out a final stretching of 0.5% so as to achieve a permanent deformation of the sheet. Consequently, the subject matter of claim 4 is not considered inventive relative to documents D1 and D2 (EPC Article 56).

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Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

Application No.
Patent No.Publication date
(day/month/year)Filing date
(day/month/year)Priority date (valid claim)
(day/month/year)

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure
(day/month/year)Date of written disclosure
referring to non-written disclosure
(day/month/year)

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

3. **Independent claim 4 - a method for producing a semi-finished product**

The subject matter of claim 4 relates to a method for producing a flat, rolled semi-finished product. Document D2, which is considered the closest prior art, discloses a method for producing a semi-finished product whose alloy matches that specified in claim 4 (see alloy B, table 1). The method includes two cold-rolling passes between an intermediate annealing and a final annealing step, wherein the degree of deformation is 30-70% during the first cold-rolling pass and 15-30% during the final cold-rolling pass.

The subject matter of claim 4 therefore differs from the above in that a final stretching of the material by 0.1-0.5% is disclosed. The technical effect of the final stretching of a sheet is that the sheet is given a permanent shape (see document D1, page 5, lines 46-51 and document D4, page 43). Proceeding from document D2, the problem to be solved by the present invention is therefore understood to be that of achieving a permanent deformation of the sheet.

Document D1 discloses Al-MG alloys which are stretched by up to 0.5% after two cold-rolling passes and an intermediate annealing between the passes and a final annealing step after the passes. In the light of the teaching of document